**File descriptor--** index to the file descriptor table

**an abstract indicator used to access a file or other input/output resource,** File descriptor is link a ticket… You declare the ticket and it allows you access to a particular file or input/output resource.

**What are file descriptors used for?**

* Reading/writing files
* Directories
* Devices
* Inter-process communication
* Network communication
* I/O (input and output) multiplexing
* File system monitoring

Inside the OS is a process control block, PCB, and inside the PCB keeps track of the contents of the process. One of the fields within the PCB is a structure called a file descriptor table. File descriptor table internally keeps track of all the resources that the process owns and can operate on. The resources being, file descriptor table holds pointers to resources. Resources:

* Files
* Terminal i/o
* Pipes
* Sockets
* devices

If a process uses these resources they will have an entry here.

So every process when it first starts is given an access to **three resources...**

**Three resources are also called “Standard numbers” which are:**

* 0: standard input
* 1: standard output
* 2: standard error